

Appl. No. 09/831,196
 Atty. Docket No. 7343M
 Notice of Non-Compliant Amendment dated 02/17/2004
 Response to Notice of Non-Compliant Amendment dated 02/27/2004

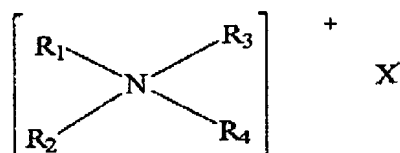
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AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below:

Claims 1 - 16 (Cancelled)

17. (Previously presented) An ultrasonic cleaning composition comprising from about 0.001% to about 99%, by weight of composition, of an ultrasonic cleaning agent wherein said composition is low foaming, has an inter facial tension of from about 10 mNm⁻¹ to about 0.0001 mNm⁻¹, is substantially free of antifoaming agents and includes a surfactant wherein said surfactant is anionic, cationic, nonionic or a combination thereof and wherein said anionic surfactant is a C₆ to C₁₈ branched or linear alkyl sulfate, a C₆ to C₁₈ branched or linear alkyl benzene sulfonate, a C₆ to C₁₈ branched or linear alkyl alkoxy sulfate, or a mixture thereof, wherein said nonionic surfactant comprises at least one nonionic surfactant having a cloud point greater than 60°C and at least one nonionic surfactant having a cloud point less than 10°C, and wherein said cationic surfactant is a cationic co-surfactant, or corresponds to the general formula:



wherein R₁, R₂, R₃, and R₄ are independently selected from an aliphatic group of from 1 to about 22 carbon atoms or an aromatic, alkoxy, polyoxyalkylene, alkylamido, hydroxyalkyl, aryl or alkylaryl group having up to about 22 carbon atoms; and X is a salt-forming anion such as those selected from halogen, acetate, citrate, lactate, glycolate, phosphate nitrate, sulfate, and alkylsulfate radicals, or is a mixture thereof.

18. (Previously presented) An ultrasonic cleaning composition according to claim 17 wherein said composition has an inter facial tension of from about 0.0001 mNm⁻¹ to about 1 mNm⁻¹.
19. (Currently amended) An ultrasonic cleaning composition according to claim 17 wherein said ultrasonic cleaning agent further comprises is selected from the group consisting of builders, surfactants, enzymes, bleach activators, bleach catalysts, bleach boosters, bleaches, alkalinity sources, antibacterial agent, colorants, perfume, lime soap dispersants, polymeric dye

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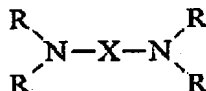
transfer inhibiting agents, crystal growth inhibitors, photobleaches, heavy metal ion sequestrants, anti-tarnishing agents, anti-microbial agents, anti-oxidants, anti-redeposition agents, soil release polymers, electrolytes, pH modifiers, thickeners, abrasives, metal ion salts, enzyme stabilizers, corrosion inhibitors, diamines, suds stabilizing polymers, solvents, process aids, fabric softening agents, optical brighteners, hydrotropes, or and mixtures thereof.

20. (Previously presented) An ultrasonic cleaning composition according to claim 17 wherein said composition has a suds height of less than about 80 mm according to a suds cylinder test.
21. (Previously presented) An ultrasonic cleaning composition according to claim 17 wherein said composition is in the form of a liquid, tablet, paste, gel, microemulsion, or tricritical composition.
22. (Previously presented) An ultrasonic cleaning composition according to claim 17 further comprising a surfactant wherein said surfactant is zwitterionic, amphoteric, or a mixture thereof.
23. (Cancelled)
24. (Previously presented) An ultrasonic cleaning composition according to claim 17 wherein said nonionic surfactant is selected from the group consisting of polyhydroxy fatty acid amides, betaines, sulfobetaines, alkyl polyglycosides, alkyl ethoxylates, amine oxide, ether-capped poly(oxyalkylated) alcohols, low foaming nonionic surfactants, and mixtures thereof.
25. (Previously presented) An ultrasonic cleaning composition according to claim 19 wherein said enzyme is selected from the group consisting of protease, amylases, cellulases, lipases, hemicellulases, peroxidases, gluco-amylases, cutinases, pectinases, xylanases, reductases, oxidases, phenoloxidases, lipoxigenases, ligninases, pullulanases, tannases, pentosanases, malanases, β -glucanases, arabinosidases, and mixtures thereof.
26. (Previously presented) An ultrasonic cleaning composition according to claim 19 wherein said bleach is an oxygen bleach.

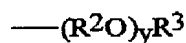
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27. (Previously presented) An ultrasonic cleaning composition according to claim 26 wherein said composition further comprises a bleach activator, bleach catalyst, and mixtures thereof.
28. (Previously presented) An ultrasonic cleaning composition according to claim 19 wherein said builder is selected from the group consisting of aluminosilicates, silicates, zeolites, polycarboxylates, phosphates, polyphosphates, phosphonates, nitrilotriacetic acid, carbonates, bicarbonates, and mixtures thereof.
29. (Previously presented) An ultrasonic cleaning composition according to claim 19 wherein said diamine has the formula:

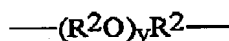


wherein each R is independently selected from the group consisting of hydrogen, C1-C4 linear or branched alkyl, and an alkyleneoxy having the formula:



wherein R2 is C2-C4 linear or branched alkylene, and mixtures thereof; R3 is hydrogen, C1-C4 alkyl, and mixtures thereof; y is from 1 to about 10; X is a unit selected from:

- i) C3-C10 linear alkylene, C3-C10 branched alkylene, C3-C10 cyclic alkylene, C3-C10 branched cyclic alkylene, an alkyleneoxyalkylene having the formula:



wherein R2 and y are the same as defined herein above;

- ii) C3-C10 linear, C3-C10 branched linear, C3-C10 cyclic, C3-C10 branched cyclic alkylene, C6-C10 arylene, wherein said unit comprises one or more electron donating or electron withdrawing moieties which provide said diamine with a pKa greater than about 8; and
- iii) mixtures of (i) and (ii);

provided said diamine has a pKa of at least about 8.

30. (Previously presented) A method of removing tough food soil from a hard surface comprising contacting said tough food soil with an aqueous solution of the composition according to Claim 17 and then imparting ultrasonic waves to said soil.

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31. (Previously presented) A method of washing soiled tableware comprising contacting said soiled tableware with an aqueous solution of the composition according to Claim 17 and then imparting ultrasonic waves to said soiled tableware.
32. (Previously presented) A method of removing tough food soil from a hard surface comprising contacting said tough food soil with a neat solution of the composition according to Claim 17 and then imparting ultrasonic waves to said soil.
33. (Previously presented) A composition according to Claim 17 wherein said composition is designed to entrain dissolved air removed by ultrasonic energy.
34. (Previously presented) A composition according to Claim 33 wherein said dissolved air is dissolved oxygen removed by ultrasonic energy.
35. (Previously presented) An ultrasonic cleaning device for use with an ultrasonic cleaning composition, said ultrasonic cleaning device comprising:
A hand-held vibrational ultrasonic device including an acoustic system comprising a piezo ceramic element and a sonotrode, wherein said sonotrode is chisel shaped having a width of from about 0.05 mm to about 5 mm and the length of said sonotrode is from about 10 mm to 50 mm long or said sonotrode is disc shaped and has a disc radius of from about 10 mm to about 100 mm.
36. (Previously presented) The ultrasonic cleaning device of Claim 35 wherein said sonotrode is comprised of titanium, aluminum, steel, or combinations thereof.
37. (Previously presented) The ultrasonic cleaning device of Claim 35 wherein said sonotrode is encased, surrounded, or in close proximity to adjunct materials used to aid in the cleaning process.

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SUMMARY

This is responsive to the Notice of Non-Compliant Amendment dated February 17, 2004. In accordance with the Notice, the "Amendments to the Claims" section is being resubmitted herewith with the proper status identifiers. As Applicants' January 26, 2004 Office Action Response is now in compliance, Applicants respectfully request early entry of this Response.

Respectfully submitted,
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Customer No. 27752